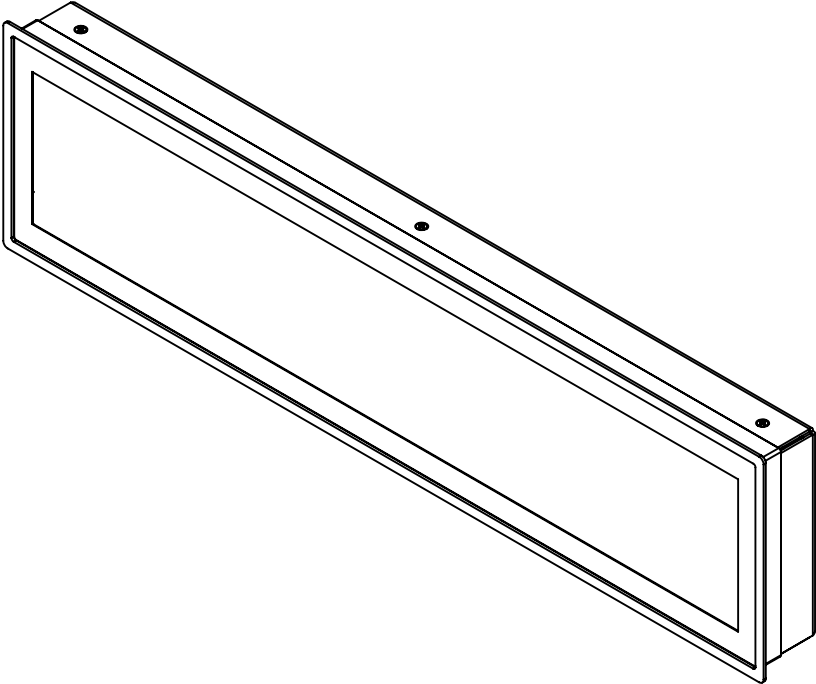


OCEANIC SYSTEMS MULTIPLE ENGINE DISPLAY
Part Numbers: 4161
USER MANUAL



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The Oceanic Systems' NMEA2000® Multiple Engine Display is a 19.2", high bright sunlight readable 800 cd/m2 display.

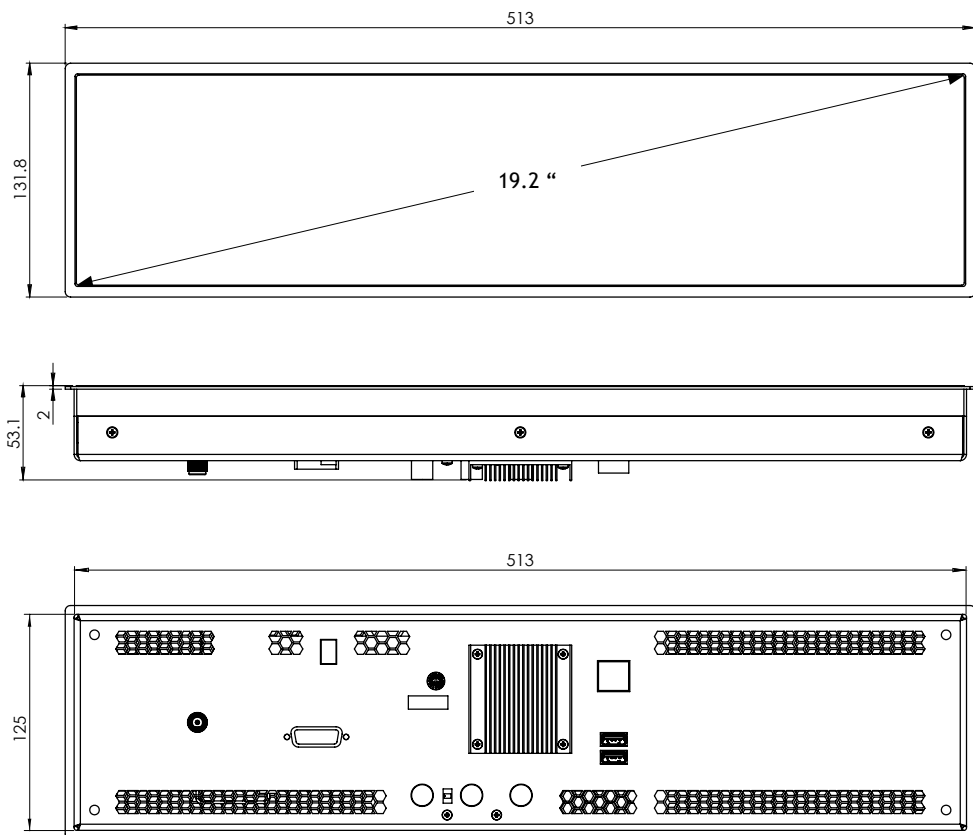
The Multiple Engine Display can monitor up to four user selectable engines simultaneously, with alarm monitoring and logging.

It is supplied with a wired remote button panel, which can control the brightness of the backlight to the display, acknowledge and clear alarm conditions

1.1 PRODUCT FEATURES

The Oceanic Systems' NMEA2000® Multiple Engine Display has the following features:

- Sunlight readable dimmable display using our BlackGlass™ technology
- 1920 x 360 Resolution
- Remote button panel providing: Brightness up/down, Alarm Mute
- Monitoring of vessels engine status with alarms
- Internal 105dB Sounder
- Includes 1 x NMEA2000® and 2x J1939 interfaces
- Switchable internal line terminator resistors for J1939 interfaces
- User selectable inboard and outboard engine manufacturer (MTU, MAN, Caterpillar & others) via rotary switch on rear of display
- User selectable metric or US imperial units
- Toughened glass
- IP rating for of IP67 for the front and IP20 for the rear of the display



3

INSTALLATION

3.1 UNPACKING THE BOX

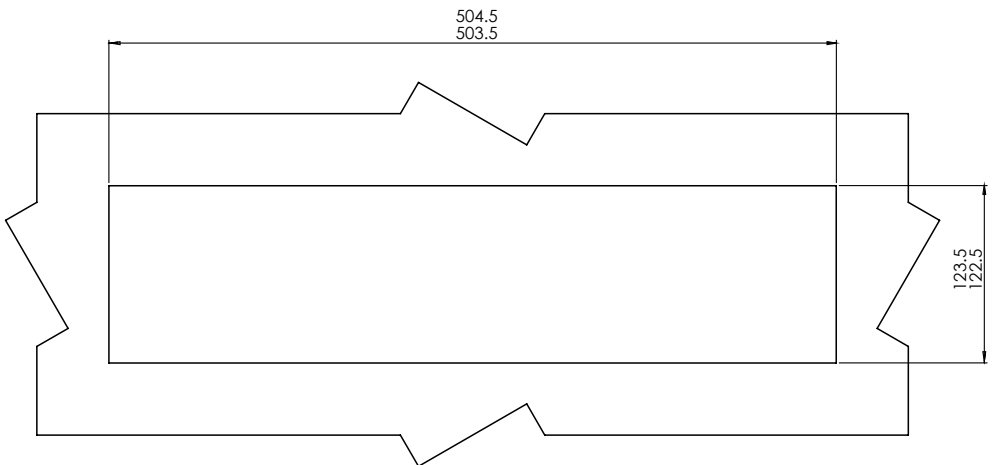
You will find the following items in the shipping box:

- 1 x Multiple Engine Display
- 1 x Remote button panel
- 1 x DC Power cable
- 1 x Bag containing 4 thumbwheel nuts & 4 sprung washers for button panel
- 1 x Bag containing 4 screws & 4 mounting clamps
- 1 x User Manual (This Document)

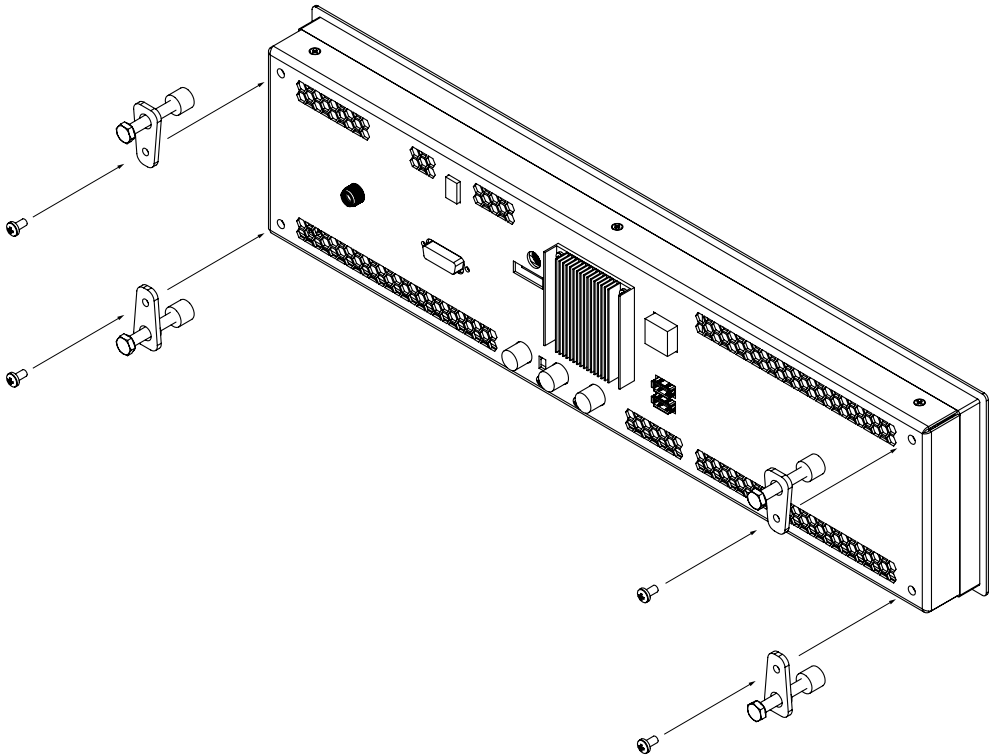
3.2 MOUNTING THE UNIT

1. The unit should be mounted through a panel to a flat surface min 8mm, max 25mm.
2. It can be mounted 45 degrees either way of vertical.
3. Ensure adequate ventilation around the product to prevent heat build up with a minimum of 50mm clearance.
4. Remember to allow enough clearance for access to cables and connectors. Cables should be retained to prevent damage to connectors.

Drawing showing panel cut out.



5. The unit should be sealed to the mounting surface using a suitable silicone sealant. This Silicone sealant will be part of the seal used to provide the IP rating for the product.
6. Using the 4 mounting clamps to the rear of display secure the unit to the mounting surface by tightening the screws.



3.3 CONNECTING THE MULTIPLE ENGINE DISPLAY

Before making any connections to the unit, ensure the NMEA2000® bus power and DC supply are turned off.

Requirements - 24VDC Supply 30W (1.25A).

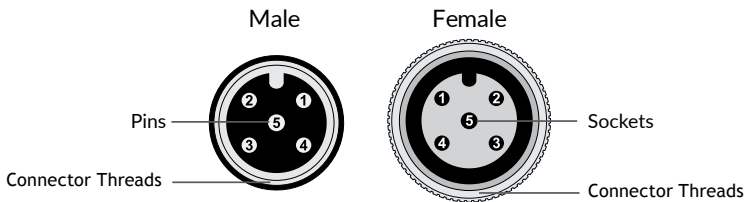
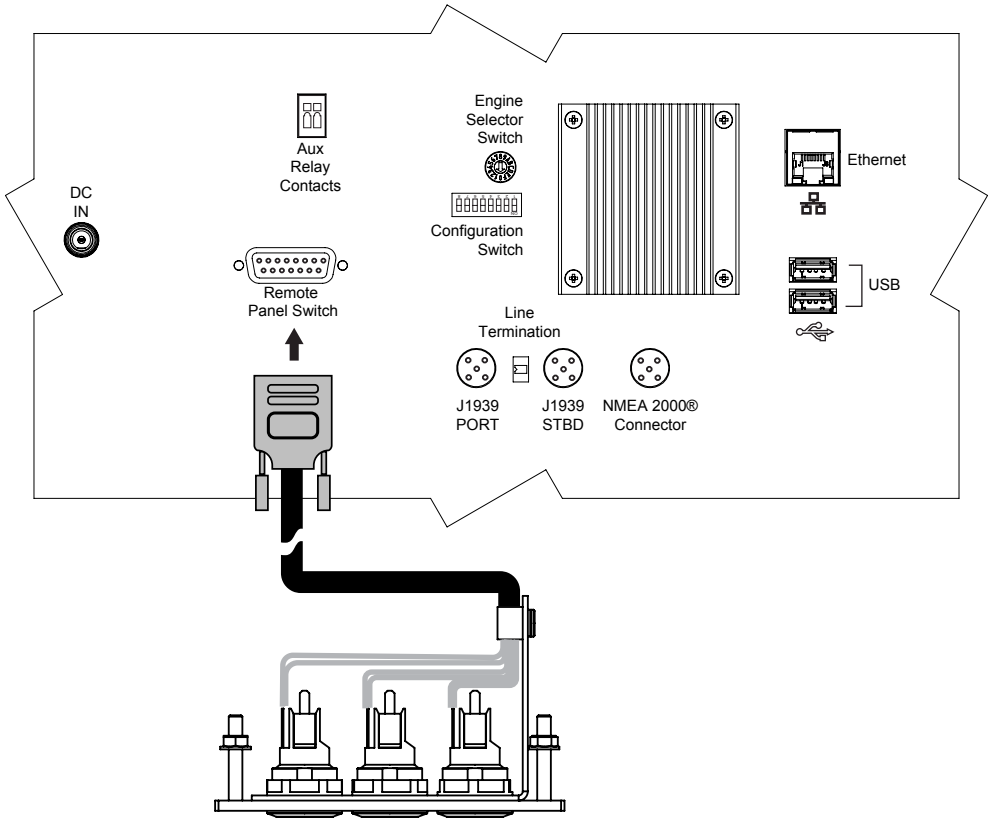
Connect NMEA2000® cable to 'Socket' on the back of the unit, observing correct orientation to ensure the keyway aligns. The cable can be extended up to 6mtrs for connection into the T-adapter on the network backbone. Ensure that the screw ring is securely tightened so that the connection remains sound.

Connect the two J1939 cables in the same manner.

Ethernet connector is for internal Oceanic Systems programming use ONLY.

The DC Power cable can be inserted into the port marked. Ensure correct orientation and make sure the screw ring is securely tightened. There are two USB A connectors, these are for program updates.

Connect the Control Panel D Type Connector to the 15Way Remote Control Panel. Please see image below for reference.

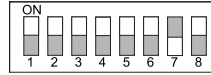


- Pin1: Shield
- Pin2: NET-S (power supply Positive, +V)
- Pin3: NET-C (power supply common, -V)
- Pin4: NET-H (CAN-H)
- Pin5: NET-L (CAN-L)

3.4 SELECTING ENGINE MANUFACTURER

Situated on the rear of the unit is an 8 Way Config switch & Rotary Switch.

To configure your engine display to inboard engine type make sure the DIP switch 7 is **OFF**

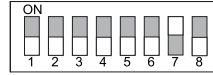


To set engine manufacturers follow the table to set rotary switch.



Switch No.	Engine manufacturer	Engine data source
0	Caterpillar	J1939
1	Cummins	NMEA2000®
2	MAN	J1939
3	MTU	J1939
4	Volvo	NMEA2000® from their gateway
5	Yanmar	NMEA2000®
6	John Deere	J1939
7	EDC7 Tier3	J1939
8	EDC7 UC31 (FPT)	J1939
9	Generic	NMEA2000®
A	Generic	NMEA2000®
B	Generic	NMEA2000®
C	Generic	NMEA2000®
D	Generic	NMEA2000®
E	Generic	NMEA2000®
F	Generic	NMEA2000®

To configure your engine display to outboard engine type make sure the DIP switch 7 is ON



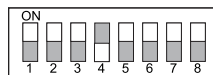
To set engine manufacturers follow the table to set rotary switch.



Switch No.	Engine manufacturer	Engine data source
0	Generic	NMEA2000®
1	Generic	NMEA2000®
2	Generic	NMEA2000®
3	Generic	NMEA2000®
4	Generic	NMEA2000®
5	Generic	NMEA2000®
6	Generic	NMEA2000®
7	Generic	NMEA2000®
8	Generic	NMEA2000®
9	Generic	NMEA2000®
A	Evinrude	NMEA2000®
B	Honda	NMEA2000®
C	Mercury	NMEA2000® from their Smartcraft adaptor
D	Yamaha	NMEA2000® from their own adaptor
E	Generic	NMEA2000®
F	Generic	NMEA2000®

3.5 DEVICE SET UP

To set engine type, number of engines, number of fuel gauges and units follow the table below to set the DIP switches on the Config Switch.



Switch No.	Switch OFF	Switch ON
1	Imperial units	SI Units
2	See fuel bar count selection below for details	
3		
4		
5	See engine count selection below for details	
6	Fuel value as %	Fuel value as unit
7	Inboard engines	Outboard engines
8	Not used	

3.6 FUEL BAR COUNT

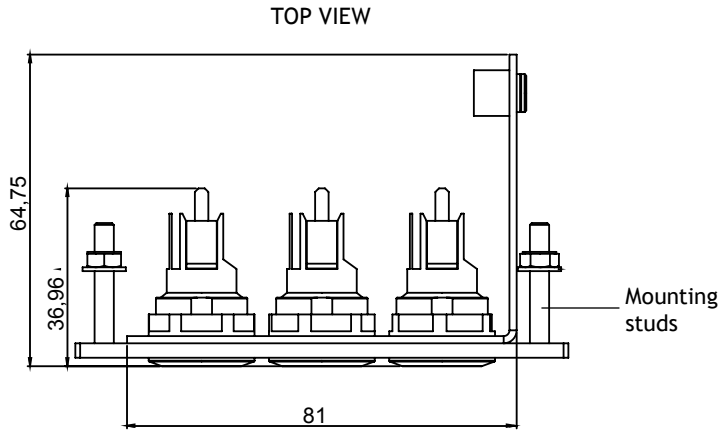
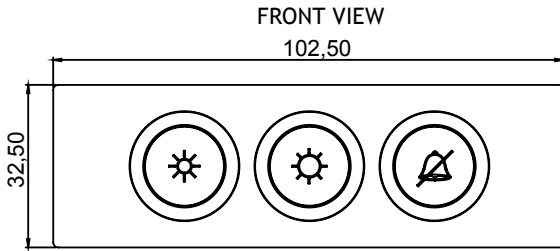
Fuel bar count selection Switch 2 & 3								
Fuel bars	Switch 2	Switch 3	Reference	Fuel bars tank instances				Screen reference
1	OFF	OFF		0	-	-	-	
2	ON	OFF		0	-	-	1	
3	OFF	ON		0	1	-	2	
4	ON	ON		0	1	2	3	

3.7 ENGINE COUNT

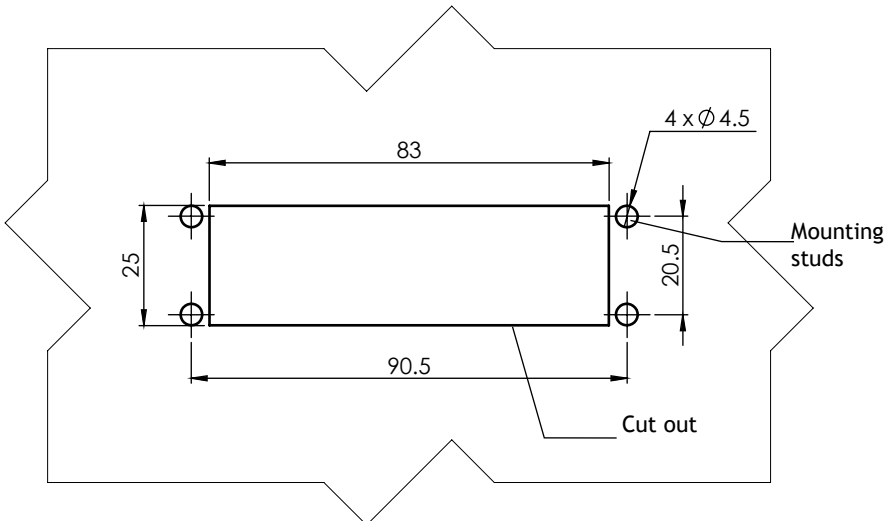
Engine count selection Switch 4 & 5								
Engines	Switch 4	Switch 5	Reference	Engine dial instances				Screen reference
2	OFF	OFF		0	1	-	-	
3	ON	OFF		0	1	2	-	
4	OFF	ON		0	1	2	3	
2	ON	ON		0	1	-	-	

3.8 MOUNTING THE CONTROL PANEL

Please see line drawing showing outline, mounting studs and mounting area for the Control Panel.



PANEL MOUNT CUTOUT



4

USER CONTROLS

The remote panel is provided with a 1m cable tail for situation away from the display.

4.1 BUTTON FUNCTIONS






DIM



BRIGHT



ALARM MUTE

Button	Function
	DIM Each press will decrement the brightness level, holding the button will continue to decrement until the minimum level is reached.
	BRIGHT Each button will increment the brightness level, holding the Button will continue to increment until the maximum level is reached.
	ALARM MUTE This will mute all current active alarm conditions

- The display will power on automatically when the DC is connected to it.
- After approx 1 minute the computer will boot up into the home screen.
- Set your desired backlight brightness using the remote panel buttons.

If you require technical support for any Oceanic Systems products you can reach us using any of the following:-

- Tel: +44(0)1425 610022
- Fax: +44(0)1425 614794
- Email: support@osukl.com
- Web: www.osukl.com
- Post: Oceanic Systems Ltd
Unit 10-11 Milton Business Centre
Wick Drive, New Milton, Hampshire BH25 6RH

Oceanic Systems (UK) Ltd
Unit 10-11 Milton Business Centre, Wick Drive,
New Milton, Hampshire, BH25 6RH, United Kingdom

Tel: +44(0)1425 610022 Fax: +44(0)1425 614794
Email: sales@osukl.com Web: www.osukl.com

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To apply for warranty claims, contact Oceanic Systems or one of its dealers to describe the problem and determine the appropriate course of action. If a return is necessary, place the product in its original packaging together with proof of purchase and send to an Authorized Oceanic Systems Service Location. You are responsible for all shipping and insurance charges. Oceanic Systems will return the replaced or repaired product with all shipping and handling prepaid except for requests requiring expedited shipping (i.e. overnight shipments). Failure to follow this warranty return procedure could result in the product's warranty becoming null and void.

Oceanic Systems reserves the right to modify or replace, at its sole discretion, without prior notification, the warranty listed above.